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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------------------------------------------------------------------------------------|-------------|-----------------------------|---------------------|------------------|
| 10/665,905 | 09/15/2003 | Jean-Jacques Vandewalle | 032326-273 | 7036 |
| 21839 7590 02/17/2009 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404 | | | | |
| EXAMINER RICEK, JASON D | | | | |
| ART UNIT 2442 | | PAPER NUMBER | | |
| NOTIFICATION DATE 02/17/2009 | | DELIVERY MODE ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary

Application No.

10/665,905

Applicant(s)

VANDEWALLE ET AL.

Examiner

JASON RECEK

Art Unit

2442

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 14-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This is in response to the RCE filed on November 26th 2008.

Status of Claims

Claims 1-9 and 14-31 are pending.

Claims 10-13 have been cancelled per applicant's amendment.

Claims 1-9 and 14-31 are currently rejected under 35 U.S.C. 103(a).

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/26/08 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claim 1 have been fully considered but they are not persuasive. Applicant argues that claim 1 contains features not described by the JDOM reference, specifically sending an invocation to a run time environment of a

server (pg. 14-15). This argument is not persuasive for several reasons. First, applicant states (pg. 15) that a run-time environment is part of a computer's operating system, or software that runs on top of the operating system. So according to applicant's definition, any software that runs on an operating system is a run-time environment. This is a very broad definition and applicant may want to reconsider what exactly it is they are trying to claim by using the term "run-time environment". Since the skeleton disclosed by JDOM is clearly software running on top of an operating system then JDOM discloses this portion of the claim. It is noted that applicant states on pg. 15 that the results are returned to the client as a DMI reply message however the term "DMI" is not in that portion of the claim.

3. Applicant's arguments with respect to the rejection of claim 14 have been fully considered and are persuasive. Specifically, the argument that the APA does not disclose invoking a method in response to a single APDU without the applet having been selected with another APDU is persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of DiGiorgio et al. US 6,385,729 B1.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 6-7, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun Microsystems, Inc. [Java Distributed Object Model (JDOM)], February 10, 1997, pages 1-22 in view of Jones et al. U.S. 6,557,032 B1.

Regarding claim 1, JDOM discloses "first and second object oriented virtual machines running on counterpart first and second computers" as Java Virtual Machines on different hosts (Pg. 5), "a communication path connection between said computers" as a transport layer (Pg. 17, 20), "a run-time environment" as Java, "generating a local object at the client machine operable as a proxy to a remote object resident at the server machine" as a client using a stub object to interact with a remote object (Pg. 10) and more specifically a Remote Method Invocation system that consists of client-side proxies (Pg. 16), "referencing the local object by an application executing at the client machine" as an application layer (Pg. 16, and Figure on Pg. 17), "causing the local object to marshal parameters" as marshalling arguments (Pg. 18), "sending a process level call request by direct method invocation to the run-time environment of the server machine" as initiating or invoking a call to the remote object (Pg. 18), "server machine's run time environment [...] causing the parameters in the request to become

unmarshaled" as a skeleton for a remote object which is a server-side entity that unmarshals arguments (Pg. 18), "said remote object to be executed" as implementing the remote object (Pg. 18) and possibly executing in separate threads (Pg. 21), "replying by marshaling the results of the execution, and sending a process level return to the client machine" as marshaling the return value of the call onto the marshal stream (Pg. 18, 19), "responsive to said reply [...] unmarshaling the results" as client-side unmarshaling the return value or exception (Pg. 18).

JDOM does not explicitly disclose "said server machine residing in a smart device; and said client machine having access to the smart device via a smart device reader" however this is taught by Jones as servers that perform using smart cards (col. 3 In. 16-26) and a user interface that contains a smart card reader (col. 3 In. 50-58, Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify JDOM with the use of smart cards as taught by Jones for the purpose of increasing the capabilities of the system. Jones suggests using smart cards for such a purpose (col. 1 In. 23-35). Moreover, smart cards are well known in the art and yield predictable results. Both invention relate to the same field and one of ordinary skill in the art would realize that smart cards can be used to improve existing inventions.

Regarding claim 2, JDOM discloses "wherein plural process call level requests and replies are generated in an alternating manner" as a system in which the client calls the server then the server replies (Pg. 18).

Regarding claim 3, JDOM discloses "wherein the local object when operating as a proxy at the client machine and the run-time environment when operating at the server machine perform respectively as stubs" as a Remote Method Invocation system that uses stubs (Pg. 2, 10, 16-18).

Regarding claim 6, it is a computer product claim that corresponds to the method of claim 1, it is therefore rejected for similar reasons.

Regarding claim 7, JDOM and Jones do not explicitly disclose "communication protocols specified according to International Standards Organization specification 7816-4" however this would have been obvious to one of ordinary skill in the art at the time of the invention. Due to the nature of the protocol (an international standard) it is well known and yields predictable results. Thus it would have been obvious to use this protocol in combination with the inventions of JDOM and Jones.

Regarding claim 29, JDOM does not explicitly disclose "the smart device comprises a smart card" however Jones teaches the use of a smart card (col. 2 ln. 59).

Regarding claim 31, it corresponds to claim 29 and is therefore rejected for the same reasons.

2. Claims 4-5, 8-9 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over JDOM and Jones in view Applicant admitted Prior Art (APA).

Claim 4 corresponds to the method of claim 1 which is disclosed by JDOM and Jones. Claim 4 further recites "said communication path being operable under a process for originating and sending byte level messages", JDOM does not disclose byte level messages however APA does teach processing methods and messages exclusively in the form of byte level strings (Pg. 5 In 5-8).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the communication mechanism of JDOM could have been implemented using byte level messages. The motivation for doing so would be to communicate with programs that have already defined APDU's (Pg. 5 In 5-8).

Regarding claim 5, JDOM discloses "wherein [...] the local object is an interface description" as a client proxy applet (Pg. 27-28). JDOM does not disclose "wherein the remote object is an applet" however the APA teaches Server Applets (Pg. 5, In. 16-18).

It would have been obvious to combine JDOM with server applets. The motivation for doing so would be to listen to the client.

Regarding claims 8-9, JDOM and Jones do not explicitly disclose "obtains access to the smart device via a command application program data unit" or "said reply is formatted into an application program data unit response" however the APA teaches that commands and responses from the card are done via application program data units (specification pg. 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use APDUs to communicate with the smart device in light of the APA.

Regarding claim 30, JDOM does not explicitly disclose "the smart device comprises a smart card" however Jones teaches the use of a smart card (col. 2 ln. 59).

3. Claims 14, 16, 18-19, 21, 23-24, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of APA and Digiorgio et al. US 6,385,729 B1.

Regarding claim 14, Jones discloses "a client computer" as terminal devices (col. 2 ln. 43-53), "an application configured to generate a local call ... to invoke a method" as an object oriented platform (col. 2 ln. 53-58), "a smart device" as a smart card (col. 2 ln. 59), and "a run-time environment configured to generate the local call" as Java objects would necessarily have a runtime environment (col. 3 ln. 45-49).

Jones does not explicitly disclose "an applet proxy configured to generate a single command APDU" or "the applet being a remote object to the application" however

these are taught by APA as Java card applets which are remote objects and are capable of exchanging APDUs (pg. 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jones with the teachings of APA for the purpose of creating an object oriented client server system. Java applets are well known and yield predictable results.

Jones and APA do not explicitly disclose "generate the local call ... in response to the single command APDU without the applet having been selected with another command APDU" however this is taught by DiGiorgio as a smart card that contains applets and uses APDU commands for execution without first selecting a specific applet (col. 4 ln. 61 - col. 5 ln. 12, col. 7 ln. 65 – col. 8 ln. 15, col. 9 ln. 1-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jones with the teachings of DiGiorgio for the purpose of improving transactions. Java applets and APDUs are well known in the art, the reduction of instructions to improve performance is also well known, thus combining the teachings of DiGiorgio is merely the combination of well known elements according to their established function in order to yield a predictable result.

Regarding claim 16, Jones discloses "generate a local return on the smart device" as the smart card is capable of executing locally (col. 5 ln. 7-9, 15-17). Jones does not explicitly disclose "the run-time environment is further configured to generate a single response APDU" or "the applet proxy is further configured to generate a local

return on the client" however these are taught by APA as a request / response exchange using APDUs (pg. 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jones with the teachings of APA for the purpose of creating an object oriented client server system. Java applets are well known and yield predictable results.

Regarding claim 18, Jones discloses "Java and the run-time environment is a Java card" as using Java (col. 2 ln. 57-59).

Regarding claims 19, 21 and 23, they are method claims that correspond to the system claims 14, 16 and 18 respectively, thus they are rejected for similar reasons.

Regarding claims 24, 26 and 28, they are device claims that correspond to the system claims 14, 16 and 18 respectively, thus they are rejected for similar reasons.

4. Claims 15, 17, 20, 22, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, Applicant admitted Prior Art (APA) and DiGiorgio in view of JDOM.

Regarding claim 15, Jones, APA and DiGiorgio do not explicitly disclose "marshal parameter values" and "unmarshal the parameter values" however this is taught by JDOM as marshalling and unmarshalling values (pg. 18).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of JDOM with the cited art. JDOM is merely the description of the underlying technology used in the references.

Regarding claim 17, it contains the some of the same limitations as claim 15 and those are rejected for the same reasons. The other limitations "run-time environment ... marshal return values" and "applet proxy ... unmarshal the return values" are rejected for similar reasons because they are also disclosed by JDOM (pg. 18).

Regarding claims 20 and 22 they are method claims that correspond to the system claims 15 and 17 respectively, thus they are rejected for similar reasons.

Regarding claims 25 and 27, they are device claims that corresponds to claims 15 and 17 respectively, thus they are rejected for similar reasons.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chang et al. US 6,769,014 B1 discloses java virtual machines and using direct method invocation between distributed objects.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON RECEK whose telephone number is (571)270-1975. The examiner can normally be reached on Mon - Thurs 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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